**NRM 5306 - GIS, GPS and Remote Sensing**
**Syllabus - Spring 2015**

**Lecture/Lab Times:** 1-2pm (lecture) 2-5pm (lab) Tuesdays in RAS 126


**Instructor:** Dr. Patricia Moody Harveson
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**Required Text:** None.

**Course Description:** An advanced course on the rapidly growing geographic technology used by natural resource managers and scientists including: geographic information systems (GIS), global positioning systems (GPS), and remote sensing methods.

**Course Objective:** Students will be introduced to new and advanced techniques for GIS, GPS, and remote sensing. Specifically, upon course completion students shall understand:

- The latest technologies in this field.
- How to use a GPS to collect data, import it into a GIS, and analyze it.
- How and where to find GIS and remote sensing data.
- How to access and use the web soil survey data available on the internet.
- Mapping a ranch from start to finish including providing printed report and maps

**Grading:**
40% Attendance/Participation
60% Final Project

**Scale:**
90-100% = A
80-89% = B
70-79% = C
60-69% = D
<60% = F

**Attendance:** Attendance represents 40% of your final grade. Notify instructor prior to explained absences. Students will be working as a team but will be held accountable for their participation and contribution.

**Final Projects:** Students will be working as a team on a ranch mapping project. Details will be discussed in class.

**Assistance:** Primary assistance by instructors will be provided during scheduled class times. Arrangements can be made for additional help as needed.

**Disability Accommodations:** It is Sul Ross State University Policy to provide reasonable accommodation to students with disabilities. If you would like to request such accommodations because of physical, mental, or learning disability, please contact the ADA Coordinator for Accessibility Services in Ferguson Hall Room 112 or call 432-837-8203.

**Course Tentative Schedule – Spring 2015**

| Date | Lecture/Lab |
|---|---|
| 20-Jan | Introduction and project planning |
| 27-Jan | Project planning |
| 3-Feb | Downloading base layers/ data sources |
| 10-Feb | Discuss data collection |
| 17-Feb | Soils Data Viewer, working with soils, ecological maps |
| 24-Feb | Data Collection |
| 3-Mar | Data Collection |
| 10-Mar | Data Collection |
| 17-Mar | Spring Break |
| 24-Mar | Data Collection |
| 31-Mar | Develop maps |
| 7-Apr | Develop meta data |
| 14-Apr | Google earth – package for landowner |
| 21-Apr | Work on final product |
| 28-Apr | Work on final product (print maps and report) |
| 5-May | Present documents to land owners |